

VOLKOV, Ye. M.

VOLKOV, YE. M.

AID P - 3709

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 14/25

Author : Volkov, Ye. M., Eng.

Title : Remodeling of the drive of an oil circuit breaker of the FS-600 type for automatic reclosure

Periodical : Energetik, 12, 19-20, D 1955

Abstract : The author describes the remodeling of an oil circuit breaker drive of the FS-600 type, manufactured by the Sachsenwerk Plant, for automatic reclosure operation. One schematic drawing of the drive.

Institution : None

Submitted : No date

VOLKOV, Ye.M., inzhener.

Device for determining the transformation ratio of current
transformers. Energetik 4 no.1:28-29 Ja '56. (MLRA 9:4)
(Electric transformers--Testing)

NAMESTNIKOV, Aleksandr Fedorovich, kand. tekhn. nauk; BELOUSOV, D.P.,
inzh.; VOLKOV, Ye.M., kand. tekhn. nauk; LIPOVSKIY, M.S., inzh.;
SAVEDARG, V.E., red.; BALLOD, A.I., tekhn. red.

[Collective-farm cannery] Kolkhosnyi konservnyi zavod. Mo-
skva, Gos. izd vo sel'khoz. lit-ry, 1959. 275 p.

(MIRA 14:5)

1. Nauchno-issledovatel'skiy institut konservnoi i ovoshche-
sushil'noy promyshlennosti, Moskva, Novoslobodskaya, 7 (for
Namestnikov). 2. Gipropishcheprom, Butyrskiy val, 68 (for
Belousov)

(Canning industry--Equipment and supplies)

ANTONOV, Mikhail Vasil'yevich; DZHAFAROV, Abdulla Fataliyevich;
VOLKOV, Yevgeniy Nikitich; SAEUROV, N.V., prof., retsenzent;
SKROBANSKIY, G.G., prof., retsenzent; RUKOSUYEV, A.N., red.;
SINEL'NIKOVA, TS.B., red.; AYRIYEVA, N.S., red.; TERYUSHIN,
M.I., tekhn. red.

[Commercial guide to food products; vegetables and fruit]Tovaro-
vedenie prodovol'stvennykh tovarov; ovoshchi i plody. Pod red.
A.N.Rukosueva. Moskva, Gostorgizdat, 1962. 400 p.

(MIRA 16:1)

(Vegetables) (Fruit)

VOLKOV, Ye.N., kand.tekhn.nauk; VERKHOSHANSKAYA, O.V., starshiy
nauchnyy sotrudnik

Pea concentrates which do not need cooking. Trudy VNIKOP
no.10:3-15 '59. (MIRA 14:8)
(Peas) (Food, Concentrated)

DIKKER, G.L.; DRUZHININA, L.N., kand. tekhn. nauk, dots.; ISKENDEROV, A.A.,
kand. tekhn. nauk, dots.; KLYUYEVA, T.K., kand. tekhn. nauk, dots.;
LOGOTKIN, I.S., kand. tekhn. nauk; MEL'MAN, M.Ye., kand. tekhn. nauk,
dots.; MISNIK, I.A.; kand. tekhn. nauk; RUSH, V.A., dots.; RUKOSUYEVA,
A.N., dots., red.; KAFKA, E.V., prof., retsenzent; FERTMAN, G.I., dots.,
retsenzent; SOBOLEVA, M.I., dots., retsenzent; BUDNITSKAYA, R.S., kand.
tekhn. nauk, retsenzent; VOLKOV, Ye.N., kand. tekhn. nauk, retsenzent;
AREF'YEV, I.I., inzh., retsenzent; KHARITONOV, A.F., retsenzent; GUREVICH-
GUR'YEV, Ye.S., retsenzent; KUZ'MINSKIY, M.M., retsenzent; INIKHOV, G.S.,
prof., retsenzent; KHOMUTOV, B.I., dots., retsenzent; BORODINA, Z.N.,
dots., retsenzent; BORISOVA, G.A., red.; MEDRISH, D.M., tekhn. red.

[Starch, sugar, honey, confectionery products, condiments, fats, milk,
and milk products] Khrakmal, sakhar, med, konditerskie, vkusovye to-
vary, zhiry, moloko i molochnye produkty. Moskva, Gos. izd-vo torg. lit-
ry, 1961. 750 p. (MIRA 14:7)

(Food industry)

VOLKOV, Ye.M., kand. tekhn. nauk; STEPCHKOV, K.A., kand. tekhn. nauk; STRASHNENKO, Ye.S.; PYATIGORSKAYA, T.I.; PARAMONOVA, Ye.S.; KOTOVICH, A.G.; NEMTSOVA, A.S.

Production technology, testing and storage of hydrolyzates and protein enrichers from soya. Trudy VNIKOP no.11:66-76 '62. (MIRA 17:9)

RUNOVA, N.V.; VOLKOV, Ye.N.; STEPCHKOV, K.A.

Food for tourists. Kons. 1 ov. prom. 16 no.9:23-25 S '61.
(MIRA 14:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Food, Canned)

VOLKOV, Ye.N., kandidat tekhnicheskikh nauk; PYATIGORSKAYA, T.I., starshiy nauchnyy sotrudnik.

Technology of producing powdered beans. Trudy VNIKOP no.6:151-159
'56. (MLRA 10:5)

(Beans--Drying)

ARTEM'YEV, B.V.; VOLKOV., Ye.N.

Preparation of instant barley coffee. Kons. i ov. prom. 16 no.2:
19-21 F '61. (MIRA 14:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Coffee) (Barley)

VOLKOV, Ye.N.; GENIN, S.A.

Means for increasing the admission capacity of enterprises and
combining manufactures in the vegetable dehydration industry.
Kons.i ov. prom. 16 no.2:39-42 F '61. (MIRA 14:4)

1. TSentral'nyy nauchno-issledvatel'skiy institut konservnoy
i ovoshchesushil'noy promyshlennosti.
(Vegetables---Drying)

BREGER, A.Kh.; RYABUKHIN, Yu.S.; TUL'KES, S.G.; VOLKOV, Ye.N.

Indium-gallium circulation loop of an IRT nuclear reactor.
Trudy Inst.fiz.AN Gruz.SSR 8:51-58 '62. (MIRA 1642)
(Nuclear reactors)

1ST AND 2ND DEGREE										3RD AND 4TH DEGREE									
PROCEDURE AND PROPERTIES INDEX																			
<p><i>BC</i> <i>AT</i></p> <p>Denaturation of myo-bean proteins by organic solvents and by heat. E. VOLKOV and I. DVINIA-MINOVA (J. Appl. Chem. Russ., 1940, 13, 287-274).—Denaturation of the proteins during treatment with org. solvents proceeds rapidly during the first 30 min., but only very slowly subsequently. The extent of denaturation rises with increase in temp. of extraction, in water content of the material, and in polarity of the solvent (denaturing effect of benzene or benzine is less than that of acetone, which is less than that of ethyl alcohol). R. T.</p>																			
450.51A METALLURGICAL LITERATURE CLASSIFICATION																			
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A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																									
PROCESSING AND POLYMERIZATION																									
<div style="float: left; width: 10%; font-size: 2em; font-weight: bold;">CA</div> <div style="float: right; width: 10%; font-size: 1.5em; font-weight: bold;">11B</div> <div style="clear: both;"></div> <p>Bacterial nutritive media from hydrolysis products of soybean groats. E. N. Volkov and G. I. Stegelskiz. <i>Trudy Tsentral. Nauch.-Issledovatel. Lab. po Pererabotke Soi, Polucheniye Produktov Fermentatsii Soi i Ikh Ispol'zovanie</i> 1959, No. 2, 56-63; <i>Khim. Refrat. Zhur.</i> 1960, No. 8, 33.—Soybean groats were hydrolyzed with HCl</p> <p>under various conditions, the hydrolyzates were concd in vacuo at 65-80° and neutralized with soda. The transparency, suitability for the growth of bacteria and the chem. compn. (total amine N, reducing sugars, ash and acidity were detd.) of the soybean exts. obtained and the broth and agar-agar media made from them were equal to those of meat ext. broths and their agar-agar media. Optimum conditions for hydrolyzing soybean groats were: 0.5% HCl, pressure 15 atm., temp. 130°, time 4 hrs., soybean ext. added to the medium 2%, and pH for clarifying the ext. with egg white 5.8-6.8. W. R. Henn</p>																									
ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION																									
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BC		B-II-8	
<p>Microscopic studies for plastic mass production. R. J. Yelverton and P. G. Gossoway (From. Org. Chem., 1959, 8, 18-19).—Plastics are obtained by pressing 82.5 pts. of a mixture of styrene monomer 60, 20% CaO 20, octadecanoic acid 1-4, Zn stearate 1-4, and carbon 225 pts. with 17.5 pts. of a mixture of Kovulene resin 24-4, (CH₃)₂N, 2-3 pts., stearic acid 0-25, and Zn stearate 0-25 pt. R. T.</p>			
<p>ASR-15A METALLURGICAL LITERATURE CLASSIFICATION</p>			
100000 04		000000 000 000	
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Denaturation of soybean proteins by organic solvents and heat. R. N. Yul'kov and I. L. Dymchukova. *J. Appl. Chem.* (U. S. S. R.) 13, 207-210 (1960). Treatment of soybeans with gasoline and alc. caused the denaturation of protein in 30 min. Treatment for 3.5 hrs. did not visibly affect the degree of denaturation. The denaturation action of the solvents is greatest for the solvent of highest dielec. const. Heat increases the denaturing effect of alc., but has little effect on that of acetone. In all cases, the greatest degree of denaturation is effected in the protein containing the most moisture. Therefore, to protect protein from denaturation, soybean material should be dry and the temp. not over 101°.

A. A. Podgorny

Albuminous plastics from soybean press cake. E. N. Volkov, P. G. Gogolev and V. Gulyaev. *Izg. Chem. Ind. (U. S. S. R.)* 6, 617-18 (1939); cf. C. A. 33, 8851¹.
The inferior qualities (discoloration, swelling and permeability to water) of pressed articles from soybean casein and residual were traced to the presence of decompn.

products of albumins. The phys. and mech. properties of the moldings can be greatly improved by the use of casein or press cake freed from the decompn. products by preliminary washing with dil. NaOH and neutralizing with 4% HCl.
Chav. Blanc

430.554 METALLURGICAL LITERATURE CLASSIFICATION

PROCESSING AND PRIORITIES INDEX										SUB AND DIV (CODE)									
13																			
The interaction between soy glycinin and formaldehyde. F. N. Yolkov, P. G. Grigor'ev and O. A. Reavetsnov. J. Applied Chem. (U. S. S. R.) 14, 416-18(1941).—The globulin-glycinin fibers of the soy bean were fixed by treatment with 21%, 4% and 0.5% soln. of formaldehyde. The beans were extd. with gasoline b. 78-80°, the gasoline was removed in vacuo, the degreased seeds were ground to fine powder and digested with 20 vols. of a 0.2% soln. of KOH, let stand for 18-20 hrs., the soln. was decanted and albumin was coagulated with 4% HCl at the isoelec. point (pH = 4.5 - 4.6). The pptd. glycinin was washed with tepid water till free of Cl ions. On treatment with formaldehyde, the amount of glycinin fixed increases with the concn. of formaldehyde and with the duration of treatment. The equil. between formaldehyde and glycinin is reached in all cases after 48 hrs. 6 references.																			
A. A. Buchtlinek																			
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1ST AND 2ND PAGES		PROCESSING AND PROPERTIES MODEL		3RD AND 4TH PAGES	
<p>BC</p> <p>B-2-1</p> <p>Interaction of soya-glycine and formaldehyde. E. N. Volkov, P. G. Grigor'ev, and O. A. Reretsov (<i>J. Appl. Chem. Russ.</i>, 1941, 14, 418-419).—Interaction of soya-glycine (I) and CH_2O was investigated for $[\text{CH}_2\text{O}]$ 0.8–22%, and for 30 min. to 30 days, the reaction being followed by determination of CH_2O not bound to (I). Increase in $[\text{CH}_2\text{O}]$ or a longer time of reaction increased the quantity of CH_2O bound to 1 g. of (I). Equilibrium between (I) and CH_2O was almost reached after 48 hr. contact at all the three concns. of CH_2O used.</p> <p>N. G.</p>					
450-56A DETAILING LITERATURE CLASSIFICATION					
1ST AND 2ND PAGES		3RD AND 4TH PAGES		5TH AND 6TH PAGES	
1ST AND 2ND PAGES		3RD AND 4TH PAGES		5TH AND 6TH PAGES	

Ca

16

The character of the hydrolysis of protein and carbohydrate substances in soybean fermentation. E. N. Volynov and O. A. Rezvetsov. *Trudy Tsentral. Nauch.-Issledovatel. Lab. Pererabotki Soi, Polucheniya Produktsii Fermentatsii i ikh Ispol'zovanie* 1959, No. 3, 15-22; *Khim. Refarat. Zhur.* 1960, No. 3, 130.—The ripening of soy sauce under the influence of *Aspergillus oryzae* is a typical biochemical process. Polypeptides and amino acids are formed from proteins under the influence of proteolytic enzymes. Diastatic enzymes decompose the carbohydrate substances into disaccharides and monosaccharides. The monosaccharides are transformed into alc. and org. acids, mainly into AcOH and lactic acid. The presence of these substances proves the presence of other enzymes.

W. R. Henn

CA 12

Removing the bitter taste from lupine. M. H. Prakhin, H. N. Yefimov and V. A. Rush. Russ. 56,069, Sept. 30, 1939; abstr. to Russ. 51,302 (C. A. 34, 51197). Russ. 56,062 is modified in that lupine is treated with aq. solns. of weak alkalis for the extn. of alkali-sol. albumins before extn. of the alkaloids with acids.

ASD. SLA METALLURGICAL LITERATURE CLASSIFICATION

Soybean casein for plastic mass production. R. N. Volkov and P. G. Grigor'ev. *Org. Chem. Ind. (U.S.S.R.)* 6, 13-15 (1969). Plastics are obtained by pressing 82.2 parts of a mixt. of soybean casein 60, 30% CaCl₂, 10% water, 10% stearic acid 1.5, Zn stearate 1.5 and sand 1.0, 2.5 parts with 17.8 parts of a mixt. of Novolac resin 21.1, CH₃CO₂Na 2.3 parts, stearic acid 0.15 and Zn stearate 0.15 part.

ASB-35A DETAILING LITERATURE CLASSIFICATION

VOZKOV, P.

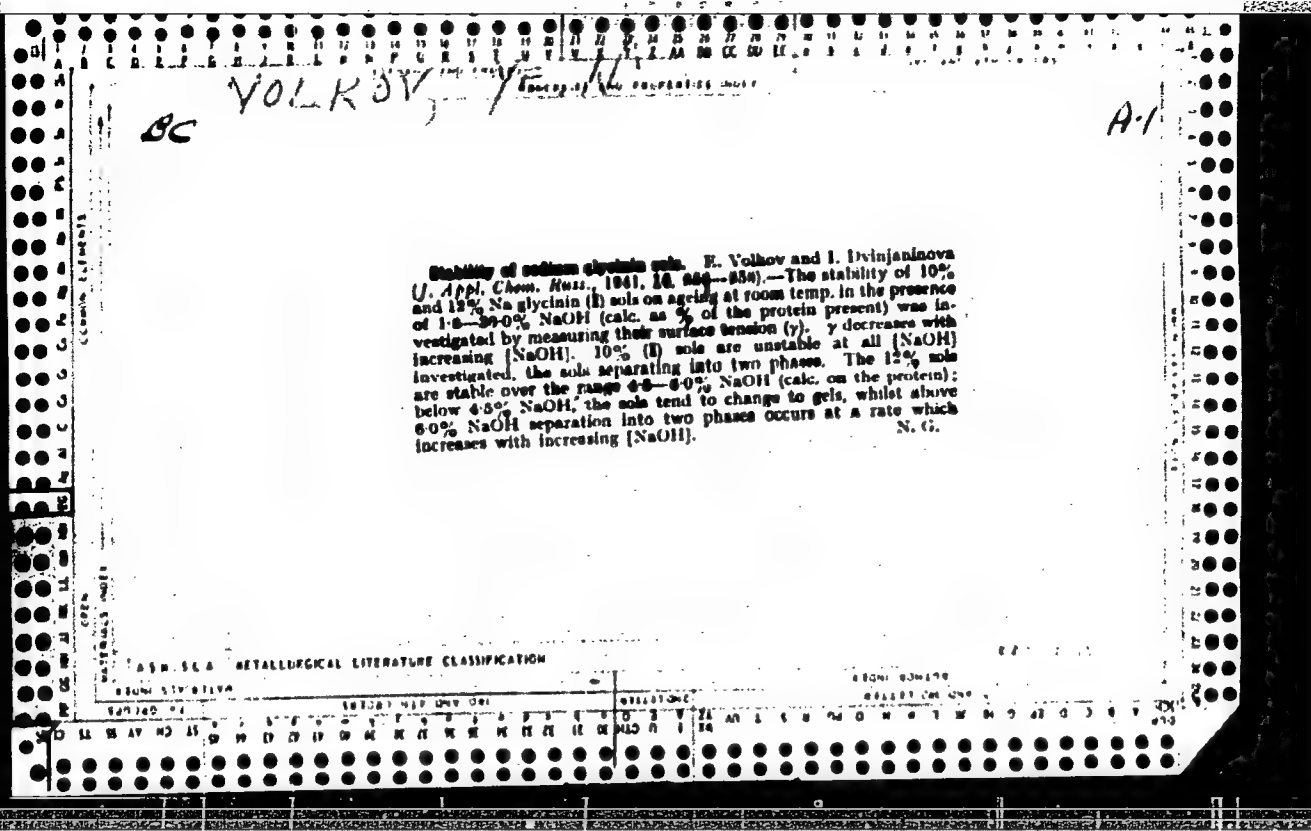
B-II-8

Supernova cells as material for production of protein plastic. P. Vozkov, P. Gusev, and V. Gusev (Frum. Ing. Chim. 1959, 6, 547-549).—The cells is treated successively with aq. NaOH and HCl, and the product is incorporated into plastic mass compositions. R. T.

ASS-51A METALLURGICAL LITERATURE CLASSIFICATION

GROUPS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



Plastic masses. E. N. Volkov, P. G. Grigor'ev and V. N. Gulyaev. Russ. 58,080, Oct. 31, 1940. Plastic masses are prep'd. from phenolaldehyde resins and soybean meal from which 12-15% of the protein has been removed by extn. with an alk. soln., followed by the neutralization with acid.

BLOSHTEYN, I.I., kand. tekhn. nauk; BUYANOV, A.A., inzh.; VOIKOV, Ye.N., inzh.

Device for testing and automatic control of the viscosity of
lacquer and paints. Der. prom. 14 no.9:22-23 S '65.

(MJRA 18:12)

VOLKOV, Ye.N.

Review of A.P. Kuzbatov's booklet "Mechanization of the production
of sauerkraut." Kons. i ov. prom. 17 no.8:44 Ag '62.
(MIRA 17:1)

KOROLEV, D.D.; VOLKOV, Ye.N.; SPIRIDONOV, D.I., spets. red.;
SIDEL'NIKOVA, L.A., red.; SOKOLOVA, I.A., tekhn. red.

[Manufacture of potato chips] Proizvodstvo zharenogo khru-
stiashchego kartofelia. Moskva, Pishchepromizdat, 1961. 43 p.
(MIRA 15:7)

(Potato chips)

VOLKOV, Ye. N.; STEPCHKOV, K.A.; STRASHNENKO, Ye.S.

Technology of the production of soybean-protein reinforcing agent
for food concentrates. Kons. i ov. prom. 14 no.9:23-25 8 '59.
(MIRA 12:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovoshchesushil'noy promyshlennosti.
(Food, Concentrated)

VOLKOV, E. N.

The interaction between soy globulin and formaldehyde.
E. N. Volkov, P. G. Gerasimov and G. A. Rezyukov.
J. Applied Chem. (U. S. S. R.) 14, 416-18 (1941).—The
globulin-glycin fibers of the soy bean were fixed by
treatment with 22%, 4% and 0.5% soln. of formalde-
hyde. The beans were exd. with gasoline b. 78-80°,
the gasoline was removed *in vacuo*, the degreased seeds
were ground to fine powder and digested with 20 vols. of a
0.2% soln. of FeOH , let stand for 18-20 hrs., the soln. was
decanted and allamin was coagulated with 4% HCl at
the isoelec. point (pH = 4.5 - 4.6). The pptd. glycin
was washed with tepid water till free of Cl ions. On treat-
ment with formaldehyde, the amount of glycin fixed in-
creases with the concn. of formaldehyde and with the dura-
tion of treatment. The equl. between formaldehyde and
glycin is reached in all cases after 48 hrs. 6 references.
A. A. Boettling

BULKIN, Yu.M.; VOLKOV, Ye.N.

Nuclear reactors used for scientific investigations. Inzh.-fiz.
zhur. no.10:3-10 0 '58. (MIRA 11:11)
(Nuclear reactors)

VOLKOV, Ye.N.

Useful brochure ("Production of soy fermentation and delicatessen
sauces" by V.P. Potorzhinnkii. Reviewed by Ye.N. Volkov). Kons. 1
ov. prom. 13 no.11:46 N '58. (MIRA 11:11)
(Soybean) (Sauces)

VOLKOV, Ye.N.; STEPCHENOV, K.A.; PYATIGORSKAYA, T.I.

**Use of soybean hydrolysates for increasing the nutritive value and
flavor quality of concentrates. Kons. i ov. prom. 12 no.3:5-8 Mr '57.
(MLRA 10:5)**

- 1. Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i ovoshche-
sushil'noy promyshlennosti.
(Soybean) (Food concentrated)**

VOLKOV, Ye.N.

VOLKOV, Ye.N.; SHELAMOVA, A.S.

Improve the quality of dehydrated potatoes and vegetables. Kons. i
ov.prom. 12 no.9:1-3 S '57. (MLRA 10:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Vegetables--Drying)

VOLKOV, Ye.N.; IVANOVA, G.A.; PROKOZ'YEVA, A.M.

Concentrates of creamed vegetable soups. Kons. i ov. prom.
15 no.2:20-22 F '60. (MIRA 13:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovoshchesnabil'noy promyshlennosti.
(Soups) (Food, Concentrated)

VOLKOV, Y.^o.N.; STEPCHKOV, K.A.; NAMESTINIKOV, A.F.

Sodium glutamate and its use in canned foods and food concentrater.
Kons. 1 ov. prom. 12 no.4:4-5 Ap '57. (MIRA 10:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Glutamic acid) (Food, Canned)

VOIKOV, Ye.N.; GKNIN, S.A.

Technical conditions for the production of dehydrated vegetables and potatoes. Kons.i ov.prom. 15 no.1:24-25 Ja '60.
(MIRA 13:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshchesushil'noy promyshlennosti.
(Vegetables--Dried)

VOIKOV, Ye. N., kandidat tekhnicheskikh nauk.; VERKHOSHANSKAYA, O.V., starshiy nauchnyy sotrudnik.

Study of varieties of peas as a raw material for the production of concentrates. Ref. nauch. rab. VNIKOP no.3:71-76 '55. (MIRA 9:11)
(Peas—Varieties)

VOLKOV, Ye.N.; STEPCHKOV, K.A.; KOTOVICH, A.G.

Manufacture of dehydrated mashed potatoes in jet-grinder mills.
Kons.i ov.prom. 15 no.11:16-19 N '60. (MIRA 13:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy
i ovoshchesushil'noy promyshlennosti.
(Potatoes)

VOLKOV, Ye.N., kand. tekhn. nauk; PROKOF'YEVA, A.M., starshiy nauchnyy
sotrudnik; IVANOVA, G.A., starshiy nauchnyy sotrudnik;
KHAKHINA, L.P., starshiy nauchnyy sotrudnik; YERKHOCSEAKSAYA,
O.V., starshiy nauchnyy sotrudnik.

For a greater variety of food concentrates. Trudy VNIKOP
no.10:115-120 '59. (MIRA 14:8)
(Food, Concentrated)

VOLKOV, Ye.N., kand.tekhn.nauk; PROKOP'YEVA, A.M., starshiy nauchnyy
sotrudnik; VERKHOSHANSKAYA, O.V., starshiy nauchnyy sotrudnik

Preparing vegetable and fruit powder in a roller ~~dryer~~.
Trudy VNI IKOP no.10:121-127 '59. (MIRA 14:8)
(Vegetables, Dried) (Fruit, Dried)

ABOVSKIY, B.TS.; VOLKOV, Ye.P.; ROZENBERG, A.Ya.

Method for determining the completion of the destruction in a
single viscose apparatus. Khim.volok. no.4:62-64 '59.
(MIRA 13:2)

1. Mogilevskiy zavod.

(Viscose)

L 09001-67 EWT(d)/EWP(c)/EWP(v)/EWP(k)/EWP(l) IJP(c)

ACC NR: AP6012157

SOURCE CODE: UR/0413/66/000/001/0073/0073

AUTHORS: Shalikhov, G. S.; Kondrashova, G. P.; Volkov, Ye. S.; Medov, B. P.;
Sidnov, N. F.; Luts'ko, S. P.; Snopov, G. A. 45

ORG: none

TITLE: Magnetic flaw detector. 14 Class 42, No. 180391

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 73

TOPIC TAGS: flaw detection, magnetic amplifier, magnetic method

ABSTRACT: This Author Certificate presents a magnetic flaw detector containing a power transformer, electromagnets, a capacitor, and rectifiers through which pulsed discharge of the capacitor is produced, and an automatic circuit controlling the rectifier triggering. Longitudinal magnetization in the automatic circuit is produced by electromagnets, and circular magnetization--by the gating of the pulsed current. To check parts of any size or form with subsequent total demagnetization, the controlled rectifiers are in the form of opposing controlled semiconductor diodes and are connected in the transformer primary and secondary circuits. The control electrodes of the primary diodes are connected to the

UDC: 620.179.141.1/.2-

Card 1/2

L 09001-67

ACC NR: AP6012157

0

capacitor discharge circuit. The control electrodes of the secondary diodes are connected to the automatic circuit. To establish the required strength of the magnetization current and the reversing frequency of the demagnetization current, the automatic circuit contains magnetic amplifiers whose outputs are connected to the control electrodes of the transformer secondary, and the input windings—with a potentiometer.

SUB CODE: ^{13, 14}~~14~~, 20, 09/ SUBM DATE: 31Dec64

Card 2/2 nut

VOLKOV, Ye.T.; MIKHASENOK, Ye.Yu.

Z.M.Penkina, compiler of a complete bibliography of Russian books
on the sea. Okeanologiya 2 no.5:954-958 '62. (MIRA 15:11)
(Penkina, Zinaida Mikhailovna, 1861-1887)

AUTHOR: Volkov, Ye.T.

3-5A-7-26/36

TITLE: To Know the Book and How to Work with It (Znat' knigu, umet' s ney rabotat')

PERIODICAL: Vestnik vysshey shkoly, 1958, Nr 7. p 76 (USSR)

ABSTRACT: Bibliographic information at the Naval Academy imeni Voroshilov is given in special bulletins published periodically. New books arriving at the library are classified and information about them is sent to the departments of the Academy. Periodical expositions of new books are held.

ASSOCIATION: Biblioteka Voenno-morskoy akademii imeni K.Ye. Voroshilova
(The Library of the Naval Academy imeni K.Ye. Voroshilov)

Card 1/1

VOLKOV, Ye.V., inzh.; BEZH, L.M., inzh.; RUSAKOV, N.F., dots.;
SKOROMICH, V.F., inzh.; SHAPIRO, B.Ye., inzh.; SHIL'YEV,
N.B., inzh.

Conversion of boiler furnaces from block peat to milled peat
by installing cyclone furnaces. Izv. vys. ucheb. zav.; energ.
4 no. 1:116-122 Ja '61. (MIA 14:2)

1. Ural'skiy politekhnicheskiy institut imeni S.I. Kirova,
Uralmashzavod i Uralenergocheret. Predstavlena kafedra ..
promteploenergetiki Ural'skogo politekhnicheskogo instituta.
(Furnaces)

11(7)

SOV/143-59-2-10/19

AUTHORS: Volkov, Ye.V., Engineer; Rysakov, N.F., Docent; and
Shalayev, N.B., Engineer

TITLE: The Application of Cyclone Stokers With Liquid Slag
Removal for Firing Cut Peat (O primeneniye tsiklon-
nykh topok s zhidkim shlakoudaleniye dlya szhiga-
niya frezernogo torfa)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Energetika,
1959, Nr 2, pp 79-86 (USSR)

ABSTRACT: Since about 50% of the coal required by the economic
districts of the Ural, including the Sverdlovsk,
Perm' and Chelyabinsk Oblast', are mined in Karagan-
da, Kuznetsk, Ekibastuz, Cheremkhovo and Khakasiya,
the authors recommend exploiting the local peat
deposits as a boiler fuel. In the past, many methods
for using peat as a boiler fuel have been tried, but
these experiments failed, since an economic and
stable firing of peat could not be achieved. Only
the pneumatic stokers of TsKTI, which were based on
the whirl principle of A.A. Shershnev, had some

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The Application of Cyclone Stokers With Liquid Slag Removal for
Firing Cut Peat

success and together with the shaft-mill method, they found the most wide-spread application. The cyclone stokers, suggested by Professor G.F. Knorre, are the latest development in this field. The shaft-mill method has a heat liberation value of $150 \cdot 10^3$ kcal/ m^3 h, while that of the TsKTI stoker is $120 \cdot 10^3$ kcal/ m^3 h, which is relatively low and therefore large stoker volumes are required. In addition, soot traps must be installed, since about 85% of the peat ash are carried out of the smokestacks with the first method and almost 100% with the TsKTI stoker. The large stoker volumes and the soot traps of the presently used methods are not suitable for a large-scale conversion of boiler stokers to use peat as fuel. Therefore, only 2.09 million tons of peat were mined in the Sverdlovsk Oblast', in 1957, while the annual output could be around 40-50 million tons annually, since the peat deposits in this area alone are estimated at 4.5 billion tons. The Ural

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peat is composed of small particles, those having a size of 3-4 mm amount to only 10-15% and its ash content is 8.9-9%. The melting point of the ash varies between 1050 and 1170°C. The moisture content changes annually; in 1956 it was 46.3%, while it decreased in 1957 to 42%. Mining one ton of peat costs presently 16-18 rubles, but this cost could be reduced with large-scale mining methods. For using peat as boiler fuel on a large scale, the authors recommend a cyclone stoker with liquid slag removal. However, there are no publications available on data for firing peat in cyclone stokers. According to data furnished by M.A. Nadzharov [Ref 5] for coal-fueled cyclone stokers, the slag viscosity must not exceed 250 poise at 1400°C. Calculations showed that with a 50% moisture content of the peat, temperatures of only 1400-1500°C could be obtained at the outlet of the cyclone stoker, even if hot air of 400°C was blown in, while theoretically 1640°C were re-

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SOV/143-59-2-10/19

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quired. The authors had the opinion that such a temperature would not provide a stable and continuous removal of the liquid slag. When burning peat in a cyclone stoker with liquid slag removal, the main problem is to provide a temperature in the combustion chamber which exceeds the melting temperature of the slag to a considerable degree. The authors performed the same calculations for peat with a moisture content of 30-35% which showed that a temperature of 1706-1733°C could be achieved when blowing in air at 350-400°C. Figure 1 shows the graphical presentation of the calculation results. A footnote says that the slag viscosities of various fuels are under investigation at UPI - Ural'skiy politekhnicheskii institut imeni S.M. Kirova (Ural Polytechnical Institute imeni S.M. Kirov). Based on the theoretical calculations an experimental cyclone stoker was built at UPI, as shown by figure 2. A fan was used, powered by a 50 kw asynchronous motor,

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SOV/143-59-2-10/19

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which produced a pressure of 2,000 mm water column at 3,000 m³/h air consumption. The air heater provided temperatures of up to 500°C. The combustion chamber of the cyclone stoker is shown by figure 3. The peat used for the experiments was preliminarily dried and had a moisture content of 15-20%, its ash content was 11% with 62-69% volatile matter. Its heat value was 3900-4100 kcal/kg. The peat was fed into the cyclone stoker at a rate of 450 kg/h at an air temperature of 350°C, whereby heat liberation values $Q/V_{ts} = 9 \cdot 10^6$ kcal/m³h and $Q/F_{ts} = 7.5 \cdot 10^6$ kcal/m³h were obtained. The gas temperatures in the cyclone stoker were 1500-1600°C while the surface temperature of the liquid slag flowing out of the tap hole was 1380-1440°C. Pyrometer errors must be taken into consideration, thus the actual temperatures were somewhat higher. Based on the positive results of the experiment, the Kafedra PTE - Kafedra promptep-

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SOV/143-59-2-10/19

The Application of Cyclone Stokers With Liquid Slag Removal for
Firing Cut Peat

loenergetiki (Chair of Industrial Thermal Power Engineering) of UPI suggested at a conference of the technical council of TETs UZTM and the Toplivnyy komitet NTOEP (Fuel Committee NTOEP) on June 28, 1957, to install a cyclone stoker for burning peat with a reduced moisture content at one of the boilers of TETs UZTM. The conference recommended the suggested reconstruction to the administration of the TETs UZTM and asked the Kafedra PTE of UPI to work out a project for such a reconstruction. There are 2 diagrams, 1 graph and 9 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut imeni S.M. Kirova (Ural Polytechnical Institute imeni S.M. Kirov)

PRESENTED: Kafedra promteploenergetiki (Chair of Industrial Heat Engineering)

SUBMITTED: November 10, 1958

Card 6/6

VOLKOV, Ya.V.

From the Exhibition of the Achievements of the National Economy
to industry, from industry to the Exhibition of the Achievements
of the National Economy. Stroi.mat. 10 no.12:28-30 D '64.
(MIRA 18:1)

SYROMYATNIKOV, N.I., doktor tekhn.nauk; VOLKOV, Ye.V., assistant; SUSLOV,
V.I., aspirant

Features of approximate simulation of nonisothermal gas flow in cyclone furnaces. Trudy Ural. politekh. inst. no.108:66-78 '61.
(MIRA 16:9)

RUBTSOV, Leonid Ivanovich; VOLKOV, Ye.V. [translator]; SOKOLOV,
I.A., red.

[Trees and shrubs in landscape architecture] Dereva ta
kushchi v landshaftnii arkhitekturi. Kyiv, Budivel'nyk,
1965. 118 p. (MIRA 19:1)

VOLKOV, Ye V.

PLATE 1 BOOK EXHIBITION: SOV/5293

Sovetskaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956
Trudy Sovetskaniya po prikladnoy gazovoy dinamike, 6. Alma-Ata, 23-25 oktyabrya
1956 g. (Transactions of the Conference on Applied Gas Dynamics, Held in
Alma-Ata, 23-25 October 1956) Alma-Ata, Izdatel'stvo Kazakhskoy SSR, 1959.

25) P. firsta allp inserted. 900 copies printed.
Sponsoring Agency: Akademiya nauk Kazakhskoy SSR. Kazakhskiy gosudarstvennyy
universitet imeni S.M. Kirova.

Editorial Board: Resp. Ed.: L.A. Vukis; V.P. Khabarov; T.P. Leont'yeva and
B.P. Gukimich. Esp.: V.V. Aleksandriyevskiy. Tech. Ed.: Z.P. Korolova.

REMARKS: This book is intended for personnel of scientific research institutes
and industrial engineers in the field of applied fluid mechanics, and may
be of interest to students of advanced courses in the field.

SOV/5293

Transactions of the Conference (cont.)

CONTENTS: The book consists of the transcriptions of 31 papers read at the
conference on gas dynamics which was convened under the initiative of the
Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova (Kazakh State Univer-
sity imeni S.M. Kirov) and the Institut energetiki Akademii nauk Kazakhskoy
SSR (Institute of Power Engineering of the Academy of Sciences Kazakhskoy
SSR) and held October 23-25, 1956. Three branches of applied gas dynamics
were discussed, namely: jet flow of liquids and gases, aerodynamics of turbine
processes, and the outflow of liquids. The practical significance of the
"Transactions" of the conference consists in the adaptation of theory to industrial
methods of technical calculation and measuring methods related to industrial
turbines and other industrial processes in which aerodynamic processes play
a predominant role. Eight papers read at the Conference are not included
in this collection for various reasons. The authors of the missing papers
are: L.B. Lyubov (Thermal and Aerodynamic Characteristics of a Jet of the Jet
Plane Burner) and A.A. Golevskiy (Outlines and Physical Model of the Jet
Motion Method); A.B. Rostyslavov, and G.Y. Yambor. L.O. Lopyrevskiy is
mentioned as being in charge of a department of the Kazakh State University,
and I.B. Malyshev, Candidate of Physical and Mathematical Sciences, Docent,
as a member of the same university. References are found at the end of
Session of October 24, 1956 (continued)

Antonova, G.S. Investigating Perturbance Characteristics of a
Free Konisotheoric Jet and an Open Flame 45

Kashkarov, V.P. [Candidate of Physical and Mathematical Sciences].
On Parallel and Contrary Motion of Two Uniform Flows of Compressible Gas 55

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Transactions of the Conference (cont.)

Leont'yeva, T.P. [Candidate of Technical Sciences]. Generation of
Axially Symmetrical Jets in Parallel and Contrary Flow 65

Rubtsov, S.V. Regularity of Motion and Combustion of Coal Particles
Kashkarov, V.P. and S.I. Pol'yak. On the Criteria in the Viscous
Flow of Gas in a Plane Parallel Channel 69

Contents of the Discussion in Brief 75

Session of October 24, 1956 (continued)

Trekhleb, S.M. Expansion of an Axially Symmetrical Jet of Gas in a
Medium of Different Density 77

Chibrikov, P.V. [Vsesoyuznyy elektrotexnikeskii institut (All-Union
Electrotechnical Institute)]. Electrotechnical computers and their
Use in Investigating Konisotheoric Gas Flow 85

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Transactions of the Conference (Cont.)	SOV/5290	101
Trofimuk, A.T. Investigating a Restricted Turbulent Jet		107
Alakoz, N.I. Survey of the Works of the Department of Hydrodynamics of the Leningrad Polytechnical Institute from Kalinin on the Jet Theory		108
Shenker, S.F., and S. Tsou. Plane Jet in a Cross Section of an Air Conduit		115
Reshetko, V.G. Use of Microinterferometer for Solving Jet Problems		122
Contents of the Discussion in Brief		
Session of October 25, 1956 (Morning)		
Matveev, B.D. (Candidate of Technical Sciences; Doctor; Tsentrallyy Institut Izmereni Polzunov, Leningrad (Central Turbine and Boiler Institute from Polzunov, Leningrad)).		123
Some Problems of the Aerodynamics of Burners Cyclone Chambers and of the Combustion of Coal Powder Pulverized Coal		
Card 6/9	SOV/5290	
Transactions of the Conference (Cont.)		124
Reshetko, V.G. Candidate of Technical Sciences, Aerodynamics of an Inviscid Jet and of a Cyclone Chamber		125
Volov, Ye. V. Some Aerodynamic Problems of a Two-Phase Flow in a Cyclone Chamber		126
Tononov, A.V., and V.P. Basile. On the Problem of the Working Process in a Cyclone Chamber		127
Yakov, G.V. Generalizing Aerodynamic Laws of Cyclone Chambers		128
Contents of the Discussion in Brief		
Session of October 25, 1956 (Evening)		
Reshetko, A.B. (Doctor of Technical Sciences; Institut Energiiki (Institute of Power Engineering)). Uniform Flow of Pulverized Coal		129
Rebgin, A.S. Regularities of Gas Flow Burning		130
Card 7/9	SOV/5290	
Transactions of the Conference (Cont.)		131
Yerkin, Sh. A. Aerodynamics of a Turbulent Gas Flow		135
Kozlov, M.I. (Candidate of Technical Sciences; Ural Polytechnical Institute from Kirov, Sverdlovsk (Ural Polytechnical Institute from Kirov, Sverdlovsk)). Industrial Testing of New Gas Heats of Open Hearth Furnaces		136
Rebgin, Ye. P. On the Thermal Regime of the Gasification Process		137
Contents of the Discussion in Brief		
Pirai Session, October 26, 1956		
Chulayev, P. Ph. (Candidate of Technical Sciences; Doctor). Survey of Work on Hydrodynamics Done by the Institute of Power Engineering of the Academy of Sciences (Institute of Power Engineering of the Academy of Sciences Karabakhov 251)		138
Rebgin, Ye. P. (Candidate). Basic Problems of Flow Thermodynamics in Real Boundary Conditions		139
Card 8/9		

85628

S/170/60/003/008/015/019/XX
B019/B067

10.4100

AUTHOR: Volkov, Ye. V.

TITLE:

Rotational Motion of a Gas in the Zone of a Cyclone Chamber
Near Its Axis

PERIODICAL:

Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 8,
pp. 26 - 30

TEXT: In studying the rotational component of the velocity of an isothermal flow in the zone near the axis, the author assumed the flow in this zone to be helical. The equation of Gromek for the helical flow of a viscous incompressible liquid which contains no dissipation terms is written down as follows: $\rho \frac{\partial \vec{W}}{\partial t} + \text{grad } \vec{H} = -\mu \text{curl } \vec{\omega}$ (1) (\vec{W} vector of the averaged velocity, \vec{H} vector of the total energy). In his studies, the author deals only with the steady flow, and shows that the Laplace equation holds for the averaged vorticity vector $\vec{\omega}$. The author obtains the following solution by means of a Fourier expansion:

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Rotational Motion of a Gas in the Zone of a
Cyclone Chamber Near Its Axis

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$$\frac{\omega}{\omega_T} = 1 - I_0\left(2.4 \frac{r}{r_0}\right) \frac{\text{sh}\left(2.4 \frac{z}{r_0}\right)}{\text{sh}\left(2.4 \frac{z_0}{r_0}\right)} \quad (12). \text{ Here, } \omega_T \text{ is defined by boundary}$$

conditions established on the basis of experimental data. (12) is the solution of the Laplace equation satisfying the boundary conditions. It describes the distribution of angular velocity in the cyclone chamber. Other authors determined $W_\varphi = \omega r$ experimentally (Ref. 2). As is proved by the diagrams shown in Figs. 2 and 3, these values are in good agreement with the curves calculated by the author. With these results, also the interactions between the flow near the axis and the peripheral flow can be studied. There are 3 figures and 4 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova, g. Sverdlovsk (Ural Polytechnic Institute imeni S. M. Kirov, Sverdlovsk)

SUBMITTED: January 22, 1960

Card 2/2

81810

S/096/00/000/08/007/024
E194/E484

10.7000

AUTHOR: Volkov, Ye.V., Engineer

TITLE: The Rotation of an Isothermal Flow of Gas in a Cyclone Chamber

PERIODICAL: Teploenergetika, 1960, Nr 8, pp 32-37 (USSR)

ABSTRACT: Earlier experimental work published in Teploenergetika, 1954, Nr 9, established the main qualitative relationships of the isothermal flow of gas in cyclone chambers and also gave quantitative relationships for some aspects of cyclone flow. However, theoretical consideration of the problem is made difficult by the great complexity of aerodynamic processes in cyclones. Indeed, some features of cyclone flow structure have not yet been explained qualitatively. Accordingly, it is desirable first to study individual typical features of this complex process and subsequently to analyse the process as a whole. Experiments showed that two characteristic zones may be distinguished in the distribution of the rotational component of the velocity over the radius of the cyclone: a peripheral region where this component increases towards the centre and an axial region where

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E194/E484

The Rotation of an Isothermal Flow of Gas in a Cyclone Chamber

it diminishes towards the centre. By analogy with the rotation of a liquid the peripheral zone is often called the quasi-potential rotation zone and the axial zone the quasi-solid rotation zone. The present work mainly concerns the axial zone and it should accordingly be mentioned that in theoretical hydromechanics, the law of quasi-solid rotation of liquids is derived from analysis of laminar rotary motion or else is introduced to complete the mathematical descriptions of plane rotation of the liquid. The results derived on this formal basis may be very different from experimental data. A typical feature of the isothermal flow in cyclone chambers is the presence of an axial return flow of gas which commences outside the chamber and penetrates to the back wall of the cyclone. As this return flow penetrates into the cyclone chamber the distribution of the rotational component of the velocity is seriously affected. In other words, the rotational component should be considered as a function of two variables, the radius and the distance from the back of the cyclone. Accordingly,

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E194/E484

The Rotation of an Isothermal Flow of Gas in a Cyclone Chamber

the development of rotary motion in the axial zone may be represented by the diagrams given in Fig 1 where section 1 is near to the discharge section of the cyclone and the only layer of gas with considerable rotary motion is that near the discharge vortex. The layer of gas near the axial return flow swirls either little or not at all. As the return flow penetrates into the chamber its inner layers commence to swirl and this swirling motion increases until the back of the chamber is reached. This effect has previously been explained by the transfer of angular momentum from the outer layers of gas to the air but the explanation is unsatisfactory in some respects and modifications are suggested. The limiting rotational velocity distribution in a turbulent flow of gas is an interesting theoretical problem, which cannot be considered here, particularly as the limiting distribution appears not to be set up in the relatively short cyclone chamber models tested. Formulae are derived for the distribution of the rotary component of motion in the axial zone of the cyclone

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S/096/60/000/08/007/024
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The Rotation of an Isothermal Flow of Gas in a Cyclone Chamber

chamber starting from hydrodynamic equations of an incompressible viscous liquid in the form given by Reynolds, see Eq (1). The methods of vector calculus are applied to obtain this expression in the form of Eq (5a) and the boundary conditions are given by Eq (8). Eq (5a) is then solved by the Fourier method and an integral is obtained in the form of a Bessel function. A general solution of Eq (5a) is then obtained in the form of Eq (17). Certain simplifications are then made which are expressed by Eq (18) so that Eq (17) is converted to the form of Eq (19). Finally, an expression for calculating the relative angular velocity is obtained in the form of expression (20) which is a solution of Eq (5) and satisfies the boundary conditions (6). This equation describes the distribution of angular velocity over the length and radius of the axial zone of the cyclone chamber and thus reflects the process of developing swirl of the neighbouring masses of gas. Calculated curves of the distribution of relative angular velocities in the axial zone of the cyclone chamber are

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The Rotation of an Isothermal Flow of Gas in a Cyclone Chamber

plotted in Fig 2. The theoretical curves are then compared with the experimental results published in Teploenergetika, 1954, Nr 9, see Fig 3. It will be seen that, in general, agreement between theory and practice is very satisfactory and an explanation is offered for the differences that are observed. This good agreement indicates that although the mathematical approach adopted is as yet without theoretical foundation it nevertheless appears to be acceptable. Eq (17) and (20), in addition to giving the velocity distribution at any section of the axial zone of the cyclone chamber also affords the possibility of explaining a number of special features in the distribution of static and total heads in this zone. The equations may also be used to analyse the interaction between the flows in the axial and peripheral zones. There are 4 figures and 6 Soviet references.

ASSOCIATION:Ural'skiy politekhnicheskii institut
(Ural Polytechnical Institute)

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4

Volkov, Ye. V.

10(2)
Sovetskoye gosudarstvennoye izdatel'stvo
Moscow, U.S.S.R., 1956

Study (Transactions of the Conference on Applied Gas Dynamics in Alma-Ata in October 1956. The conference was subdivided into three areas of applied gas dynamics: jet flows of fluids and gases, the aerodynamics of heating processes, and the discharge of a fluid. The practical value of the "Transactions of the Conference" consists in the development of theory, methods of technical calculation and methods for systematic measurement applied to heating, furnace, and other industrial processes for which, in most cases, aerodynamic phenomena are decisive factors.

Sponsoring Agency: Kazakhskiy gosudarstvennyy universitet imeni S.K. Kirova, Kirova.

Ed. V.V. Aleksandrovich, Tech. Ed. E.P. Rorikina, Editorial Board: L.A. Nul's (Resp. Sec.), V.P. Kashkarov, T.P. Ismail'yeva, and M.P. Batishenko.

NOTE: This book should be of interest to scientists and engineers working on problems of applied gas dynamics and may be of use to students.

COVERAGE: This book presents reports and brief summaries of the discussions which took place at the Conference on Applied Gas Dynamics in Alma-Ata in October 1956. The conference was subdivided into three areas of applied gas dynamics: jet flows of fluids and gases, the aerodynamics of heating processes, and the discharge of a fluid. The practical value of the "Transactions of the Conference" consists in the development of theory, methods of technical calculation and methods for systematic measurement applied to heating, furnace, and other industrial processes for which, in most cases, aerodynamic phenomena are decisive factors.

Volkov, Ye. V. Some Problems in the Aerodynamics of a Two-Phase Flow in a Cyclone Furnace

Tenkonskiy, A.Y., and I.P. Melnik. On the Working Process in a Cyclone Chamber

Yakubov, G.Y. Generalization of the Aerodynamic Laws of Cyclone Chambers

Brief Summary of the Discussions

Session of October 25, 1956 (evening)

Resnyakov, A.B. Direct-Flow Pulverized-coal Torch

Telegin, A.S. Combustion Laws of a Gas Torch

Yershin, Sh.A. Aerodynamics of a Turbulent Gas Torch

Kolovay, M.I. Industrial Testing of New Turbs for Siemens-Martin Gas Furnaces

Bogdanov, Ye.P. On the Thermodynamics of the Gasification Process

Brief Summary of the Discussions

Session of October 26, 1956

Zhukovskiy, R.Sh. Survey of the Work on Thermodynamics Done by the Electric Power Institute of the Academy of Sciences of the Kazakh SSR

Romanenko, I.Y. (Deceased). Basic Problems of the Thermodynamics of Flow for Real Boundary Conditions

Vul's, L.A. On the Circular Motion of a Viscous Gas

Sirotenko, M.K. Effect of the Local Redistribution of Energy in a High-speed Gas Flow

Lifshits, A.G. Discharge of Boiling and Hot Water Through Conical Nozzles

Rudchenko, G.A., and Melnikov, P.Y. Fields of Concentration of Highly-dispersed Aerosols in Airflows

Brief Summary of the Discussions

Resolutions of the Conference on Applied Gas Dynamics Held in Alma-Ata, October 25 - 26, 1956

AVAILABLE: Library of Congress

VOLKOV, Ye.V., assistant.

Study of an experimental cyclone furnace with wet-bottom slagging.
Trudy Ural.politekh.inst.no.61:25-37 '56. (MLRA 10:2)
(Furnaces)

VOLKOV, Ye.V.

Rotary movement of a gas in the preaxial zone of a cyclone chamber.
Inzh.-fiz.zhur. no.8:26-30 Ag '60. (MIRA 13:8)

1. Ural'skiy politekhnicheskii institut im. S.M.Kirova,
g. Sverdlovsk.
(Fluid dynamics)

VOLKOV, Ye.V.

Concerning the aerodynamics of a two-phase flow in a cyclone
furnace with concentrated secondary air intake. Trudy Ural
politekh. inst. no.76:24-34 :60. (MIRA 16:6)

(Furnaces)

VOLKOV, Ye.V.; GASYUK, A.I.; MAGRACHEV, S.L.; SYROMYATNIKOV, N.I.

Characteristics of Otor'insk coal. Trudy Ural politekh. inst.
no.76:35-40 '60. (MIRA 16:6)

(Khanty-Mansi National Area--Coal--Analysis)

BASKAKOV, A.P., kand.tekhn.nauk; ~~VOLKOV, Ye.Z.~~, inzh.; SHALAYEV, N.B., inzh.

In reference to the article "Thermal calculation of brick linings
for modern high-power steam boilers." Elek.sta. 29 no.8:92
Ag '58. (MIRA 11:11)

(Boilers)

1. VOLKOV, YU
2. USSR (600)
4. Coal Preparation
7. Mechanical treatment of brown coal, Mast.ugl. 2 no. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

BROUN, K.; DMITRIYEV, K.; YEVTYUKHOV, K.; VOLKOV, Yu., starshiy nauchnyy
soтрудnik

Discussing the article "Methods of drawing-up industrial safety rules
and their contents." Okh. truda i sots. strakh. no.6:47-54 Je '59.
(MIRA 12:10)

1.Starshiy inzhener po tekhnike bezopasnosti ordena Trudovogo Krasnogo
Znameni tresta "Yushuraltyashstroy" Orenburgskogo sovnarkhoza, g.Orenburg
(for Broun). 2.Tekhnicheskij inspektor stantsii Sinarskaya Yuzhno-
Ural'skoy zheleznoy dorogi (for Dmitriyev). 3.Zamestitel' nachal'nika
Spetsinspektsei Gosgortekhnadzora RSFSR (for Yevtyukhov). 4.Vsesoyuznyy
nauchno-issledovatel'skiy institut okhrany truda Vsesoyuznogo tsentral'-
nogo soveta profsoyuzov, Leningrad (for Volkov).
(Industrial safety)

VOLKOV, Yu., starshiy nauchnyy sotrudnik

Designers need unified standards. Okhr.truda i sots. strakh.
no.10:16-17 0 '59. (MIRA 13:2)

1. Leningradskiy institut okhrany truda Vsesoyuznogo tsentral'-
nogo soveta profsoyuzov.
(Industrial safety) (Factories--Design and construction)

VOLKOV, Yu., predavatel' fizicheskogo vospitaniya

Lessons in the fresh air. Prof.-tekhn.obr. 19 no.11:26 N '62.
(MIRA 16:2)

1. Remeslennoye uchilishche No.16 g. Moskvy.
(Physical education and training)

VOLKOV, Yu.A.

Concerning the Q-factor of a transistor stage. Izv.vys.ucheb.
zav.; radiotekh. 5 no.5:561-567 S-0 '62. (MIRA 15:11)

1. Rekomendovana kafedroy elektroniki Moskovskogo inzhenerno-fizi-
cheskogo instituta.

(Transistors)

VOLKOV, YU. A.

USSR/ Engineering - Steel resistance

Card 1/1 : Pub. 128 - 20/31

Authors : Amuchin, M. A., and Volkov, Yu. A.

Title : The influence of casehardening by heating with HF current on steel resistance to withstand impact

Periodical : Vest. mash. 10, 83 - 84, Oct 54

Abstract : The editorial gives some information on tests conducted to determine the resistance to impact of casehardened prismatic components made of steels, Mark 40, 40Kh, and 30KhN4A. Three USSR references (1940 - 1952). Graphs; diagram.

Institution :

Submitted :

Volkov, Yu. A.

1087* (Effect of Shot Peening on the Endurance Limits of Specimens Subjected to Repeated Shock Loads.) Vlianiye poverkhnostnogo naklepa drab'iu na ogranicheniye dolgozhechnost' obrabotok pri povtornom udare. M. A. Anuchin and Yu. A. Volkov. Vestnik Mashinostroyeniya, v. 34, no. 8, Aug. 1954, p. 55-58.

Effects of shot peening variables on strength of polished and unpolished specimens of alloy steel. Graphs, tables. 2 ref.

SP

ANUCHIN, M.A., doktor tekhnicheskikh nauk, professor; VOLKOV, Yu.A.,
kandidat tekhnicheskikh nauk.

Surface hardened parts subjected to a limited number of repeated
impacts. Trudy NVTU no.66:12-34 '55. (MLRA 9:8)
(Metals--Hardening) (Shot peening)

VOLKOV, Yu.A.,

Some problems concerning the methods of meteorological
observations in the open sea. Okeanologia 3 no.4:706-714 '63.
(MIRA 16:11)

1. Institut okeanologii AN SSSR.

VOLKOV, Yu.A.; KURKIN, M.I., red.; LEONIDOV, P.I., red.; KHUSNUTDINOV, Sh.S., tekh.red.

[Ways of raising the economic effectiveness of fruit culture; based on the example of the collective farms of Verkhniy Uslon District Tatar A.S.S.R.] Puti povysheniya ekonomicheskoi effektivnosti sadovodstva; na primerekh kolkhozov Verkhne-Uslonskogo raiona TASSR. Pod red. M.I.Kurkina. Kazan', Tatarskoe knizhnoe izd-vo, 1960. 53 p.
(MIRA 14:9)

(Tatar A.S.S.R.—Fruit culture)

VOLKOV, Yu.A.

Evaluating a modification of the solution of the equation
 $(z_1, \dots, z_n) \det \| z_{ij} \| h(x_1, \dots, x_n)$ depending on changes
in the right side of the equation. Vest.LGU 15 no.13:5-14 '60.
(MIRA 13:7)

(Equations)

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S/043/60/019/004/013/015XX
C 111/ C 333

AUTHOR: Volkov, Yu. A.

TITLE: Existence of a Convex Polyhedron Realizing a Given
Polyhedral Metric. I

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki,
mekhaniki i astronomii, 1960, Vol. 19, No.4, pp.75-86

TEXT: The author uses the terminology of (Ref.1). He gives a new
proof of the theorem:

Let R be a domain homeomorphic to a disk on a manifold with a
polyhedral metric of nonnegative curvature and let the boundary
 L of R have everywhere nonnegative swerve towards R ; then R is
isometric to a convex cap.

The proof is based on the following idea from (Ref.4): In order to
construct a closed convex surface with a differential-geometric
metric prescribed on a spherical surface, it is sufficient to
continue this metric from the spherical surface into the interior
of the sphere so that the sphere is transformed into a manifold
which is isometric to a convex body of the Euclidean space. In order
to realize this idea the author uses polyhedra according to A. D.

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C 111/ C 333

Existence of a Convex Polyhedron Realizing a Given Polyhedral Metric. I

Aleksandrov (Ref.1) which satisfy certain special conditions: they are convex, have a nonnegative curvature, their upper base consists of triangles, the curvature of the basal plane is positive in all internal corners, the swerve of the boundary of this basal plane is positive in all boundary angles, the boundary angles have zero heights in the polyhedron. 13 lemmata are given before the proof. 1

There are 6 references: 5 Soviet and 1 German.

Card 2/2

AUTHOR: Aleksandrov, A.D., Volkov, Yu.A. 43-58-13-4/13
TITLE: Theorems of Uniqueness for Surfaces in the Large. IV (Teoremy yedinstvennosti dlya poverkhnostey v tselom: IV)
PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1958, Nr 13(3), pp 27-34 (USSR)
ABSTRACT: The paper contains a detailed representation of the results partially announced in [Ref 1]. The theorems and their proofs correspond to those ones of [Ref 3]. In contradistinction to [Ref 3] only Euclidean spaces are considered where the principal curvatures are understood in the sense of the relative differential geometry. The analogy to the results of [Ref 3] is considerable so that the author points to [Ref 3] because of the numerous conclusions. One of the conclusions contains a result of Süss [Ref 4].
There are 4 references, 3 of which are Soviet and 1 German.
SUBMITTED: March 22, 1958
1. Mathematics 2. Surfaces--Theory

Card 1/1

Volkov, Yu. A., Agakhanyan, T. M.

"Practical Videoamplifier Circuits on Junction Transistors,"
by T. M. Agakhanyan and Yu. A. Volkov, Radiotekhnika, No 11,
Nov 56, pp 38-44

Practical videoamplifier circuits on junction transistors of the
PIYe, PLI, and PIZh types were built with the purpose of decreasing the
distortions of the pulse fronts.

Calculations and experimental data demonstrated that significant
widening of the pass-band of the amplifiers on crystal transistors was
possible by circuit methods.

For the three types of junction transistors mentioned above, the
possibility was demonstrated of building videoamplifiers with a tran-
sition characteristic build-up time of from 0.1 to one microsecond while
the amplification factor varied from 3 to 1,000.

Sum 1287

VOLKOV, Yu. A.

VOLKOV, Yu. A.: "The existence of a polyhedron with a given evolute". Leningrad, 1955. Leningrad Order of Lenin State U imeni A. A. Zhdanov. (Dissertations for the degree of Candidate of Physicomathematical Sciences.)

SO: Knizhnaya Letopis' No. 50. 10 December 1955. Moscow

VOLKOV, Yu. A.

Transactions of the Third All-union Mathematical Congress, Moscow, Jun-Jul '56,
Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Volkov, Yu. A. (Leningrad). On the Existence of Convex
Surfaces With Given Metric.

146

VOLKOV, Yu.A.

Deformation of convex polyhedral angles. Usp.mat.nauk 11 no.5:209-
210 S-O '56. (Angle) (Polyhedra) (MLRA 10:2)

VOLKOV, YU.A.

CARD 1 / 3

PA - 1709

SUBJECT USSR / PHYSICS
 AUTHOR AGAHANJAN, T.M., VOLKOV, YU.A.
 TITLE Practical Schemes of Wideo-Amplifiers on Flat Triodes.
 PERIODICAL Radiotekhnika, 11, fasc. 11, 38-44 (1956)
 Issued: 12 / 1956

In the present work practical schemes of wideo-amplifiers in which the new distribution of the current carriers is carried out by means of complete back-coupling, are described. At first schemes for a one-cascade amplifier are shown. The chain of back coupling serving the purpose of diminishing distortions on the impulse fronts in all cases leads to an increase of the temperature stability of the scheme. In those cases in which this becomes necessary an additional temperature compensation may be provided. Backcoupling makes it possible to reduce the time of the increase of the transition characteristic of the cascade considerably. Various oscillograms of the output voltage of the cascade with backcoupling in the critical and in the oscillating state are mentioned. The time of the increase of the cascade with backcoupling can be computed according to the formulae mentioned in the authors' work in Radiotekhnika, 11, fasc.9 (1956). By means of the complex backcoupling it is possible to extend the transmission width of the amplifier to the value which exceeds the frequency limit. In an example mentioned here the utmost frequency limit is nearly double the frequency limit of the coefficient of the current amplification of the triode. It is then possible, by means of the complex backcoupling, to improve the impulse front, and besides, backcoupling improves a number of other characteristics.

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Radiotekhnika, 11, fasc. 11, 38-44 (1956) CARD 2 / 3

tics of the amplifier: Increase of input resistance, increase of stability, reduction of nonlinear distortions, and, consequently, also an increase of the permitted value of the output voltage etc. As the amplification coefficient is usually given, the application of the scheme with complex backcoupling entails the necessity of increasing the number of cascades of the amplifier. Some multi-cascade amplifiers are then described. In this connection the number of cascades and their parameters (type of triode, degree of backcoupling, etc.) which warrant the least possible impulse distortion must be selected. A formula is given according to which it is possible to compute the coefficients of amplification according to voltage for average frequencies. The time of the increase of the transition characteristic of the cascades is reduced with a decrease of backcoupling. However, in the case of low backcoupling a large number of cascades is necessary in order to attain the given amplification. In the case of a given amplification and number of cascades the degree of the backcoupling need not necessarily be the same in all cases. It is advisable to apply a lower degree of backcoupling in the case of the first cascade. The scheme of a two-cascade amplifier and its characteristic are described in form of a diagram. Besides, the oscillograms of the output voltage of the amplifier are shown. - Computations and experiments show that a considerable broadening of the transmission band of the amplifier is possible on crystalline triodes with the help of this scheme.

Radiotekhnika, 11, fasc. 11, 38-44 (1956) CARD 3 / 3

PA - 1709

On flat triodes of home production wideo-amplifiers in which the time needed for the increase of the transition characteristic is from 0,1 to 1 μ F, can be constructed with a corresponding amplification coefficient of from 3 to 1000. It may be assumed that in future crystalline triodes in large impulse schemes will become a serious competition of electron tubes.

INSTITUTION:

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16,3500

AUTHOR: Volkov, Yu.A.

TITLE: Bounds for the Difference of Solutions of the Equation
 $f(z_1, \dots, z_n) \det \|z_{ij}\| = h(x_1, \dots, x_n)$ in Terms of Difference of the
 Right Side of the Equation

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki,
 mekhaniki i astronomii, 1960, No. 13, pp. 5 - 14

TEXT: Let $x = (x_1, \dots, x_n)$, $\zeta = (z_1, \dots, z_n)$, $z_i = \frac{\partial z}{\partial x_i}$, $z_{ij} = \frac{\partial^2 z}{\partial x_i \partial x_j}$,

$z = z(x_1, \dots, x_n)$. Let $h(x) \geq 0$ be defined in a convex domain D of the space
 of the x ; let $f(\zeta)$ be defined for all ζ , summable on every closed bounded
 measurable set, and let $m = \inf_{\zeta} f(\zeta)$.

Theorem 1: Let $z^0(x)$ and $z^1(x)$ be convex solutions of the equation

$$(1) \quad f(z_1, \dots, z_n) \det \|z_{ij}\| = h(x_1, \dots, x_n)$$

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Bounds for the Difference of Solutions of the
Equation $f(z_1, \dots, z_n) \det \|z_{ij}\| =$
 $= h(x_1, \dots, x_n)$ in Terms of Difference of the Right Side of the Equation

which correspond to the right sides $h = h^0(x)$ and $h = h^1(x)$ and which agree on the boundary Γ of D . Then it holds

$$\max_{x \in D} [z^0(x) - z^1(x)] \leq \frac{C}{m} \left\{ \sup_{E \subset D} \left[\int_E (h^1 - h^0) dx \right] \right\}^{1/n},$$

where E is an arbitrary subset of D and C is a constant depending only on n and D .

Theorem 2 : If $z^1(x)$ and $z^0(x)$ are convex solutions of the equation

$$(2) \quad \omega_f(M, z) = \nu(M)$$

which correspond to the right sides $\nu^1(M)$ and $\nu^0(M)$ and which agree on the boundary of D , then

$$\max_{x \in D} [z^0(x) - z^1(x)] \leq \frac{C}{m} \left\{ \sup_{E \subset D} [\nu^1(E) - \nu^0(E)] \right\}^{1/n},$$

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Bounds for the Difference of Solutions of the
Equation $f(z_1, \dots, z_n) \det \|z_{ij}\| = h(x_1, \dots, x_n)$
in Terms of Difference of the Right Side of the Equation

where E, C are defined as in theorem 1, while $\omega_f(M, z)$ and $\nu(M)$ are the
set functions defined in (Ref. 1) which in the regular case represent the
integrals $\int_M f(\xi) \det \|z_{ij}\| dx$ and $\int_M h(x) dx$.

There are 3 references : 1 Soviet, 1 American and 1 English.

Card 3/3

1-FW

Volkov, Yu. A. On deformations of a convex polyhedral angle. Uspehi Mat. Nauk (N.S.) 11 (1956), no. 5(7), 209-210. (Russian)

Pogorelov, A. V. A new proof of rigidity of convex polyhedra. Uspehi Mat. Nauk (N.S.) 11 (1956), no. 5(7), 207-208. (Russian)

The first paper establishes: Let V, V' be two convex polyhedral angles of more than two faces, which, in the same cyclical order, are pairwise congruent. If e_i, e_i' ($i=1, \dots, n \geq 2$) are the unit vectors from the vertices of V, V' along corresponding edges and θ_i, θ_i' are the dihedral angles of V, V' respectively at e_i, e_i' ($\theta_i = \pi$ or $\theta_i' = \pi$ admitted), then the vector $\sum (\theta_i' - \theta_i) e_i$ is different from 0 and points into the spherical image of V unless V and V' are congruent.

The second paper deduces very simply from this result the following general form of Cauchy's theorem. Two intrinsically isometric convex polyhedra in E^3 are congruent as sets in E^3 .

H. Busemann.

VOLKOV 40. 1.

Effect of shot blasting on repeated-impact resistance.
M. A. Anashin and Yu. A. Volkov. *Vestnik Mashino-*
stroeniya 34, No. 8, 55-8 (1951). Notched Mesnager speci-
mens of C 0.10, Cr 0.72, Ni 1.67, Mo 0.22%, and of plain
C steels 0.55% were shot-blasted on the notched side with
1-1.5 min. chilled iron shot and tested to destruction by re-
peated impacts ranging between 10.2 and 24.7 kg./sq. cm.
The life of samples increased 1.5-3.5 times by the treatment,
the alloy steel responding more pronouncedly. Higher im-
pact loads lower, however, both the abs. and relative strength
increase caused by shot blasting. The strength increases in
this case during the first 2-2.5 min. of blasting and then de-
creases. Flucting destroys the strengthening effect when
above 150°.

J. D. Cat

ACC NR: AR7004095 (N) SOURCE CODE: UR/0169/66/000/012/V010/V011

AUTHOR: Zubkovskiy, S. L.; Volkov, Yu. A.

TITLE: Direct measurements of some characteristics of atmospheric turbulence above water

SOURCE: Ref. zh. Geofizika, Abs. 12V71

REF SOURCE: Sb. 2-y Mezhdunar. okeanogr. kongress, 1966. Tezisy dokl. M., Nauka, 1966, 172-173

TOPIC TAGS: atmospheric turbulence, wind velocity, atmospheric temperature, wind profile, ocean dynamics / Black Sea, Mediterranean Sea

ABSTRACT: The results of investigations carried out aboard the ship "Ak. Vavilov" in the Black and Mediterranean Seas in 1964 and 1965 are presented. Equipment from the Institute of Physics of the Atmosphere, previously used for studies on turbulence structure and temperature above a solid underlying surface, was used for measurements and statistical processing of wind velocity pulsations and temperature. The pickups of the devices were located on a floating

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UDC: 551.465.15.

ACC NR: AR7004095

spar buoy at a distance of 50 m from the ship. An acoustic anemometer made it possible to measure the pulsations of the horizontal and vertical wind velocity components, u' and w' ; a microthermometer measured temperature pulsation, T' . For all the devices the time constant was of the order of 0.01 sec. The following atmospheric turbulence characteristics were calculated using special electronic equipment: 1) pulsation dispersions $\sigma_u = \sqrt{\overline{u'^2}}$, $\sigma_w = \sqrt{\overline{w'^2}}$, $\sigma_T = \sqrt{\overline{T'^2}}$; 2) vertical heat flows and motion quantities $Q = \overline{C_p \rho w' T'}$, $\tau = -\overline{\rho u' w'}$; 3) pulsation energy distribution along the spectrum of wave numbers $F_u(k)$, $F_w(k)$, and $F_T(k)$; 4) mean wind velocity profiles $\bar{u}(z)$ and some mean temperature profiles $\bar{T}(z)$. Measurements of all pulsation characteristics were usually made at an altitude of two above the calm sea surface level, or, in some cases at a 1-m level. The members of the Institute of Oceanology, Academy of Sciences, made measurements of spectral composition and sea intensity along with the atmospheric measurements. From the data obtained, relationships between pulsation characteristics and the averaged characteristics of temperature and wind fields above the agitated sea surface were obtained. In particular, the relationship between the friction rate, $\epsilon = (\tau/\rho)^{1/2}$,

and the mean wind velocity, $\bar{u}(z)$, was established. The value of v_* , calculat-

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